

WHAT IS CLAIMED IS:

1           1.     A method of registering a shortcut name corresponding to a destination for  
2     a speech recognition system in a vehicle navigation system, the method comprising:  
3                 receiving a destination to which directions are requested from the user;  
4                 determining whether the received destination is a frequently requested  
5                 destination;  
6                 responsive to determining that the received destination is a frequently  
7                 requested destination, receiving a shortcut name corresponding to  
8                 the received destination as speech from the user and recognizing  
9                 the shortcut name by speech recognition; and  
10                registering the shortcut name to a personal profile of the user.

1           2.     The method of claim 1, further comprising adding the shortcut name to a  
2     grammar database of the speech recognition system.

1           3.     The method of claim 1, wherein receiving the shortcut name comprises:  
2     prompting the user whether a shortcut should be registered for the  
3                 received destination;  
4                 responsive to receiving an indication from the user that a shortcut should  
5                 be registered for the received destination, receiving the shortcut  
6                 name corresponding to the received destination from the user as  
7                 speech.

1           4.       The method of claim 1, wherein receiving a destination from a user  
2 comprises receiving the destination in the form of speech from the user.

1           5.       The method of claim 1, wherein receiving a destination from a user  
2 comprises receiving the destination by manual input of the destination by the user  
3 through a touch sensitive screen or input keys.

1           6.       The method of claim 1, further comprising storing the received destination  
2 as destination history data in the user's personal profile.

1           7.       The method of claim 1, wherein determining whether the received  
2 destination is a frequently requested destination comprises comparing the received  
3 destination with destination history data stored in the user's personal profile.

1           8.       The method of claim 7, wherein the received destination is determined to  
2 be a frequently requested destination based upon the number of times the received  
3 destination was requested in a predetermined period of time.

1           9.       The method of claim 1, further comprising determining whether the  
2 received shortcut name as a whole is duplicative of, or has a pronunciation similar to, a  
3 previously registered shortcut name or a recognizable word stored in a grammar database  
4 of the speech recognition system, prior to registering the received shortcut name.

1           10.      A method of deregistering a shortcut name corresponding to a destination  
2 for a speech recognition system in a vehicle navigation system, the method comprising:  
3                   receiving speech from a user;

4 conducting speech recognition on the received speech;  
5 determining whether the received speech includes a previously registered  
6 shortcut name corresponding to a frequently requested destination;  
7 responsive to determining that the received speech includes a previously  
8 registered shortcut name, determining whether the destination  
9 corresponding to the shortcut name is a destination intended by the  
10 user;  
11 responsive to determining that the destination corresponding to the  
12 shortcut name is not the destination intended by the user, deleting  
13 the shortcut name from a personal profile of the user.

1 11. The method of claim 10, wherein deleting the shortcut name comprises:  
2 prompting the user whether the shortcut name should be deleted from the  
3 user's personal profile;  
4 responsive to receiving an indication from the user that the shortcut name  
5 should be deleted, deleting the shortcut name from the user's  
6 personal profile.

1 12. The method of claim 10, further comprising:  
2 responsive to determining that the destination corresponding to the  
3 shortcut name is the destination intended by the user, substituting  
4 the corresponding destination for the shortcut name in the  
5 recognized speech.

1           13.   A shortcut system comprising:  
2                   a user profile database including a plurality of shortcut names and a  
3                   plurality of shortcut destinations corresponding to the shortcut  
4                   names; and  
5                   a shortcut registration module for registering and deregistering the  
6                   shortcut names and the corresponding shortcut destinations in the  
7                   user profile database.

1           14.   The shortcut system of claim 13, further comprising:  
2                   a speech recognition module recognizing the shortcut names included in  
3                   speech input to the vehicle navigation system, for registration of  
4                   the shortcut names to or deregistration of the shortcut names from  
5                   the user profile database.

1           15.   The shortcut system of claim 14, wherein the speech recognition module  
2                   determines whether the input speech includes one of the plurality of shortcut names and  
3                   substitutes the corresponding shortcut destination for the determined shortcut name.

1           16.   The shortcut system of claim 14, wherein the speech recognition module  
2                   compares the input speech with the shortcut names to determine whether the input speech  
3                   includes one of the shortcut names.

1           17.   The shortcut system of claim 14, wherein the speech recognition module  
2                   includes:

3 a grammar database storing grammar to be compared with the input  
4 speech for speech recognition, the shortcut names being stored as  
5 part of the grammar; and  
6 a speech recognition engine for comparing the input speech with the  
7 grammar.

1 18. The shortcut system of claim 13, wherein the user profile database further  
2 includes a list of destination history addresses, Geo-codes each corresponding to the  
3 destination history addresses, destination counts each corresponding to the list of  
4 destination history addresses, and dates and times when the corresponding destination  
5 history address was requested, the list of destination history addresses indicating  
6 destinations to which directions were at least once requested by a user.

1 19. The shortcut system of claim 18, wherein the destination history addresses  
2 indicate destinations to which directions were at least once requested by the user's speech  
3 or by the user's manual input of destinations through a touch sensitive screen or input  
4 keys.

1 20. A method of registering a shortcut name corresponding to a sentence or  
2 phrase for use in a speech recognition system, the method comprising:  
3 receiving a sentence or phrase from the user;  
4 determining whether the received sentence or phrase is a frequently stated  
5 sentence or phrase;  
6 responsive to determining that the received sentence or phrase is a  
7 frequently stated sentence or phrase, receiving a shortcut name

8                   corresponding to the sentence or phrase as speech from the user  
9                   and recognizing the shortcut name by speech recognition; and  
10                  registering the shortcut name to a personal profile of the user.

1           21.    The method of claim 20, further comprising adding the shortcut name to a  
2   grammar database of the speech recognition system.

1           22.    The method of claim 20, wherein receiving the shortcut name comprises:  
2                  prompting the user whether a shortcut should be registered for the  
3                  received sentence or phrase; and  
4                  responsive to receiving an indication from the user that a shortcut should  
5                  be registered for the received sentence or phrase, receiving the  
6                  shortcut name corresponding to the received sentence or phrase  
7                  from the user.

1           23.    The method of claim 20, further comprising storing the received sentence  
2   or phrase as history data in the user's personal profile.

1           24.    The method of claim 20, wherein determining whether the received  
2   sentence or phrase is a frequently stated sentence or phrase comprises comparing the  
3   received sentence or phrase with history data stored in the user's personal profile.

1           25.    The method of claim 24, wherein the received sentence or phrase is  
2   determined to be a frequently stated sentence or phrase based upon the number of times  
3   the received sentence or phrase was requested in a predetermined period of time.

1           26.     The method of claim 20, further comprising determining whether the  
2     received shortcut name as a whole is duplicative of, or has a pronunciation similar to, a  
3     previously registered shortcut name or a recognizable word stored in a grammar database  
4     of the speech recognition system, prior to registering the received shortcut name.

1           27.     A method of deregistering a shortcut name corresponding to a frequently  
2     stated sentence or phrase for use in a speech recognition system, the method comprising:  
3                 receiving speech from a user;  
4                 conducting speech recognition on the received speech;  
5                 determining whether the received speech includes a previously registered  
6                         shortcut name corresponding to frequently stated sentence or  
7                         phrase;  
8                 responsive to determining that the received speech includes a previously  
9                         registered shortcut name, determining whether the sentence or  
10                        phrase corresponding to the shortcut name is a sentence or phrase  
11                        intended by the user; and  
12                responsive to determining that the sentence or phrase corresponding to the  
13                        shortcut name is not the sentence or phrase intended by the user,  
14                deleting the shortcut name from a personal profile of the user.

1           28.     The method of claim 27, wherein deleting the shortcut name comprises:  
2                 prompting the user whether the shortcut name should be deleted from the  
3                         user's personal profile; and

4 responsive to receiving an indication from the user that the shortcut name  
5 should be deleted, deleting the shortcut name from the user's  
6 personal profile.

1 29. The method of claim 27, further comprising:  
2 responsive to determining that the sentence or phrase corresponding to the  
3 shortcut name is the sentence or phrase intended by the user,  
4 substituting the corresponding sentence or phrase for the shortcut  
5 name in the recognized speech.

1 30. A method of registering a shortcut name corresponding to a flagged  
2 destination for a speech recognition system in a vehicle navigation system, the method  
3 comprising:  
4 receiving a flagged location from the user, the flagged destination being a  
5 location marked on the vehicle navigation system as a location of  
6 interest to the user;  
7 receiving a shortcut name corresponding to the flagged location as speech  
8 from the user and recognizing the shortcut name by speech  
9 recognition; and  
10 registering the shortcut name to a personal profile of the user.

1 31. The method of claim 30, further comprising adding the shortcut name to a  
2 grammar database of the speech recognition system.



1           32.    The method of claim 30, wherein receiving the shortcut name comprises:  
2                   prompting the user whether a shortcut should be registered for the flagged  
3                   location;  
4                   responsive to receiving an indication from the user that a shortcut should  
5                   be registered for the flagged location, receiving the shortcut name  
6                   corresponding to the flagged location from the user as speech.

1           33.    The method of claim 30, further comprising determining whether the  
2   received shortcut name as a whole is duplicative of, or has a pronunciation similar to, a  
3   previously registered shortcut name or a recognizable word stored in a grammar database  
4   of the speech recognition system, prior to registering the received shortcut name.